



Short Safety Subject

WAS IT AN ACCIDENT OR WAS IT AN ERROR?

What is an accident? Briefly, it is a sudden and unforeseen event. Given that definition, can we say that the Apollo fire that killed three astronauts on the launch pad, and the Challenger disaster, were *accidents*?

The first Apollo fatalities were due to a fire that occurred when the spacecraft cabin was charged with pure oxygen during a test. Unfortunately, there was an electrical short under the seat of one of the astronauts. Oxygen fed the resulting fire. The men could not escape because of a poorly designed escape hatch that took too long to open even under ideal conditions. It is well known that pure oxygen atmospheres are very dangerous. It has also been recognized for many years that escape hatches must be simple to use and designed so they will open quickly.

The *Challenger* exploded because cold temperatures effected the performance of a seal already stressed due to an inadequate design. Previous *Challenger* inspections had shown that the seals were not holding up as intended during launches, and it was known that low temperatures would degrade them further.

What do these events have in common? In every case, there were experts in charge and plenty of opportunities to anticipate problems. Experience should have told them to take corrective action long before the disastrous incidents took place. So why - in spite of all the warning signs - were these conditions allowed to exist? The answer is simple: The warning signs were overlooked. So ask the question again: "Were they accidents or were they errors?"

Be alert to warnings and take heed when they are encountered. Irritated by the metal filings hitting you in the face and eyes while you grind? This is a warning that you need eye and face protection. Do you keep banging your knuckles when your wrench slips? That is your warning that an old favorite tool may be worn out and need replacing. Have you or a co-worker ever suffered an injury because you failed to anticipate and ward off possible dangers?

Think about what could go wrong before you act! If something minor goes wrong, this is a warning to stop! Consider what has gone awry. Figure out what should be done to resolve the problem, then take care of it! Accidents are usually errors on someone's part. They are not an incidental part of the job. If you accept the mind set that they are, accidents *will* occur.

This is your challenge: Think about what pitfalls may come up during work tasks. Recognize the early warning signs of things going wrong. Have the strength to stand up and say:

"Hold on a minute. Let's think about this!"
